

## **ABSTRACT OF THE DISCLOSURE**

### **BOREHOLE LOGGING APPARATUS FOR DEEP WELL DRILLING WITH A DEVICE FOR TRANSMITTING BOREHOLE MEASUREMENT DATA**

The invention is directed to a borehole logging apparatus for deep well drilling, with a signal transmitter for transmitting measured data obtained while drilling from a borehole through the drilling fluid to the earth's surface, and with an elongated housing which is adapted for insertion in the drilling fluid conduit of a drill string. Accommodated in the housing is a flow regulator with a control piston, which controls the cross-section of opening of a bypass opening in response to the pressure differential generated at an entrance opening of the housing and the force of a spring, in such manner that the part of the drilling fluid current delivered to the housing conduit, which is fed to the signal transmitter, is maintained substantially constant, and the remaining excess drilling fluid current is routed to the drilling fluid conduit via the bypass opening.

(FIG. 1)